Service Schematics

NOKIA 2310

RM-189

Introduction

__Important:__

This document is intended for use by authorized service centers only.

“Service Schematics“ was created with focus on customer care.
The purpose of this document is to provide further technical repair information for NOKIA mobile phones on Level 3/4 service activities.
It contains additional information such as e.g. “Component finder”, “Frequency band table” or “Antenna switch table”.
The “Signal overview” page gives a good and fast overview about the most important signals and voltages on board.
Saving process time and improving the repair quality is the aim of this document.
It is to be used additionaly to the service manual and other training or service information such as Service Bulletins.

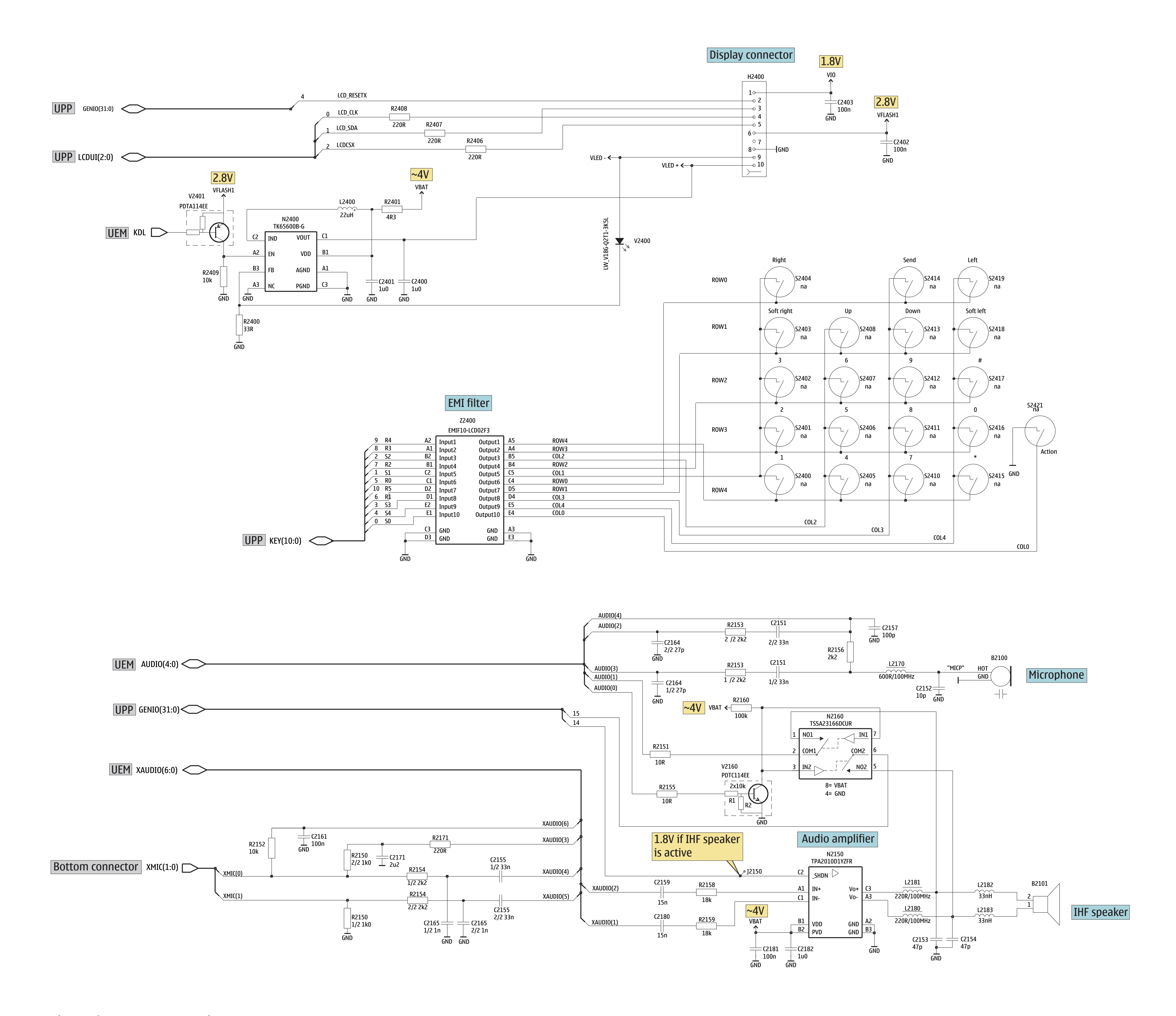
__All measurements were made using following equipment:__

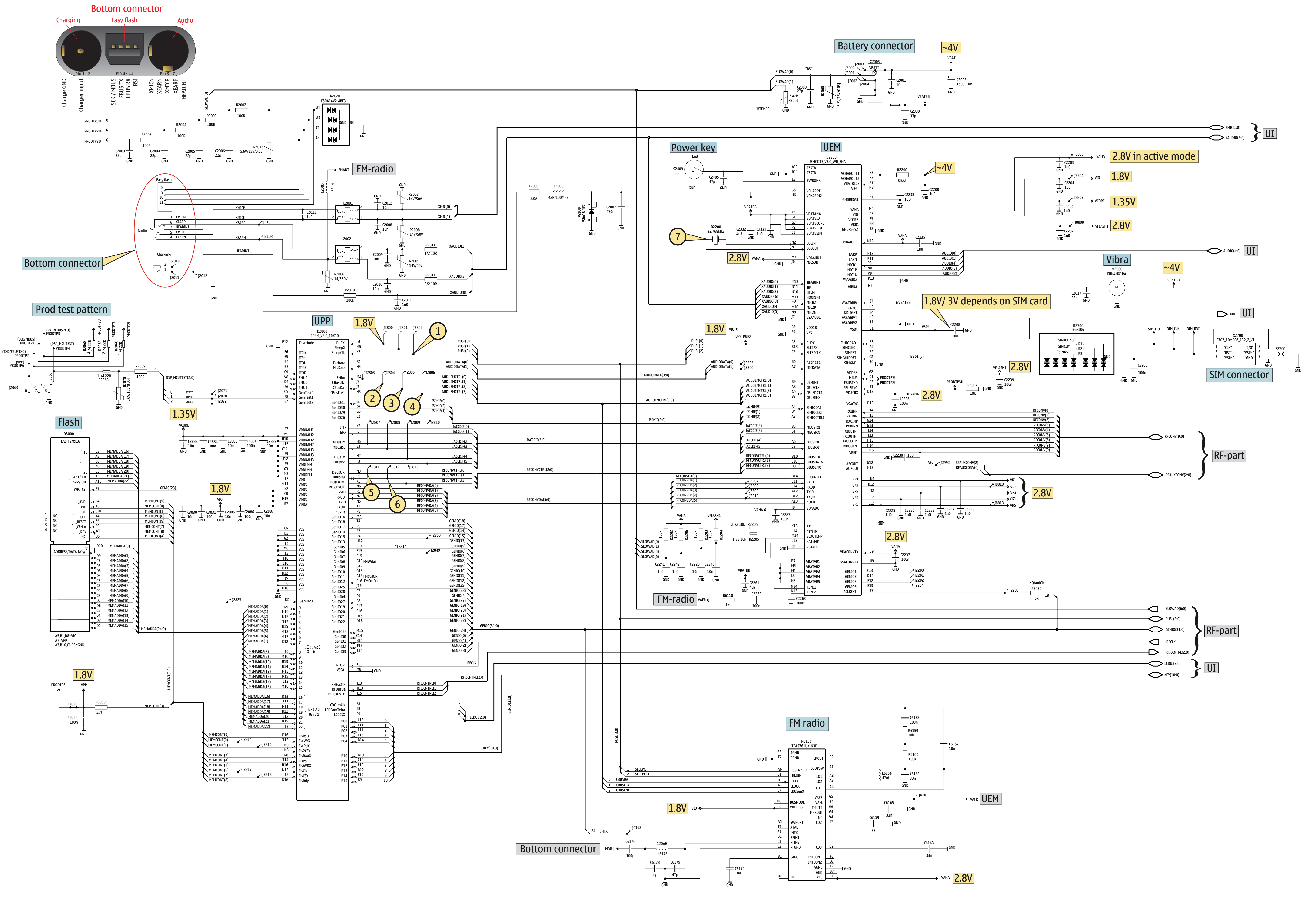
Nokia repair SW	:	Phoenix version 2006.04.6.136
Oscilloscope	:	Fluke PM 3380A/B
Spectrum Analyzer	:	Advanced R3162 with an analog probe
RF-Generator/GSM Tester	:	Rhode & Schwarz CMU 200
Multimeter	:	Fluke 73 Series II

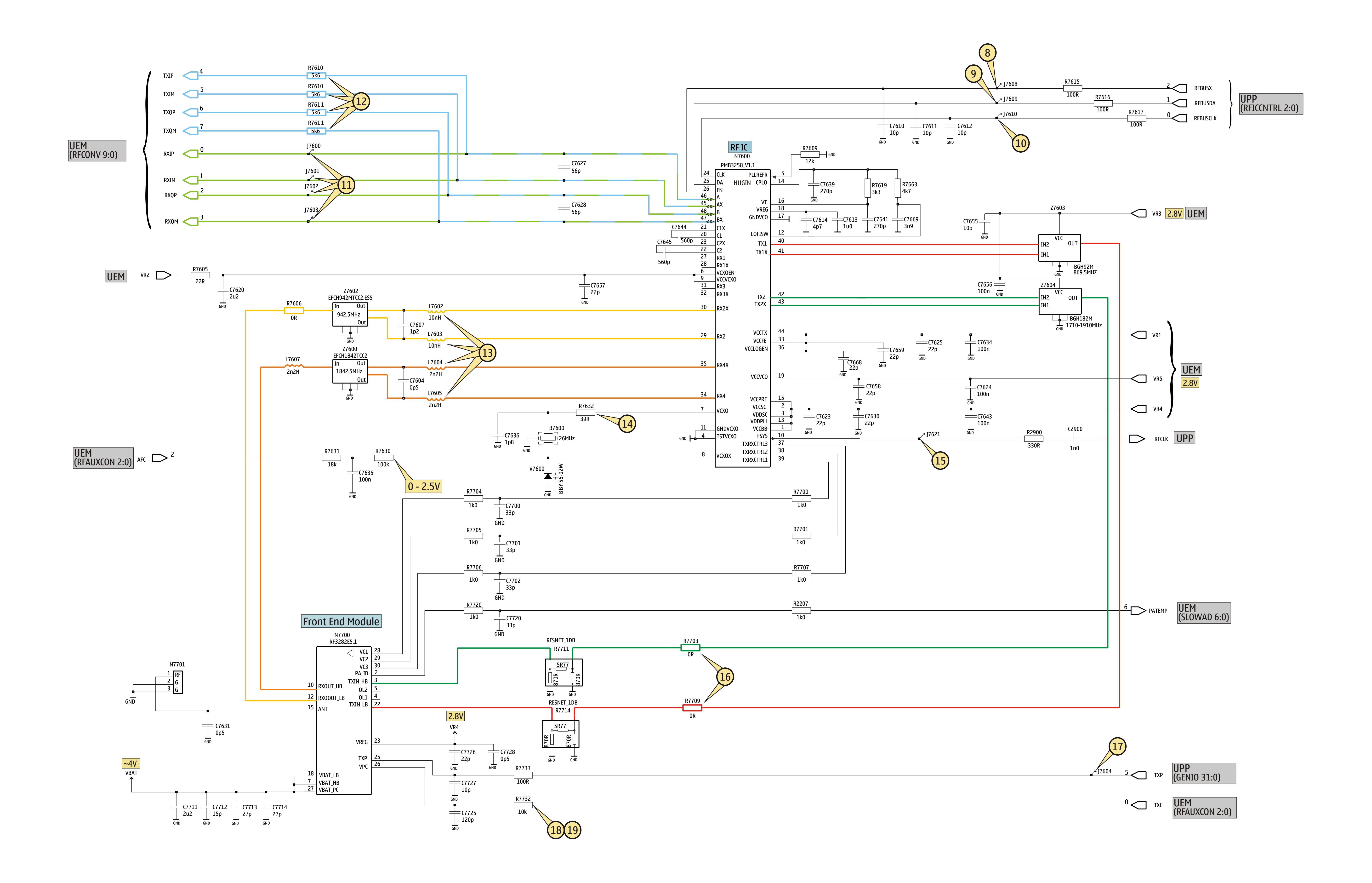
While every endeavour has been made to ensure the accuracy of this document, some errors may exist. If the reader finds any errors, NOKIA shall be notified in writing.

Please send E-Mail to: __training.sace@nokia.com__

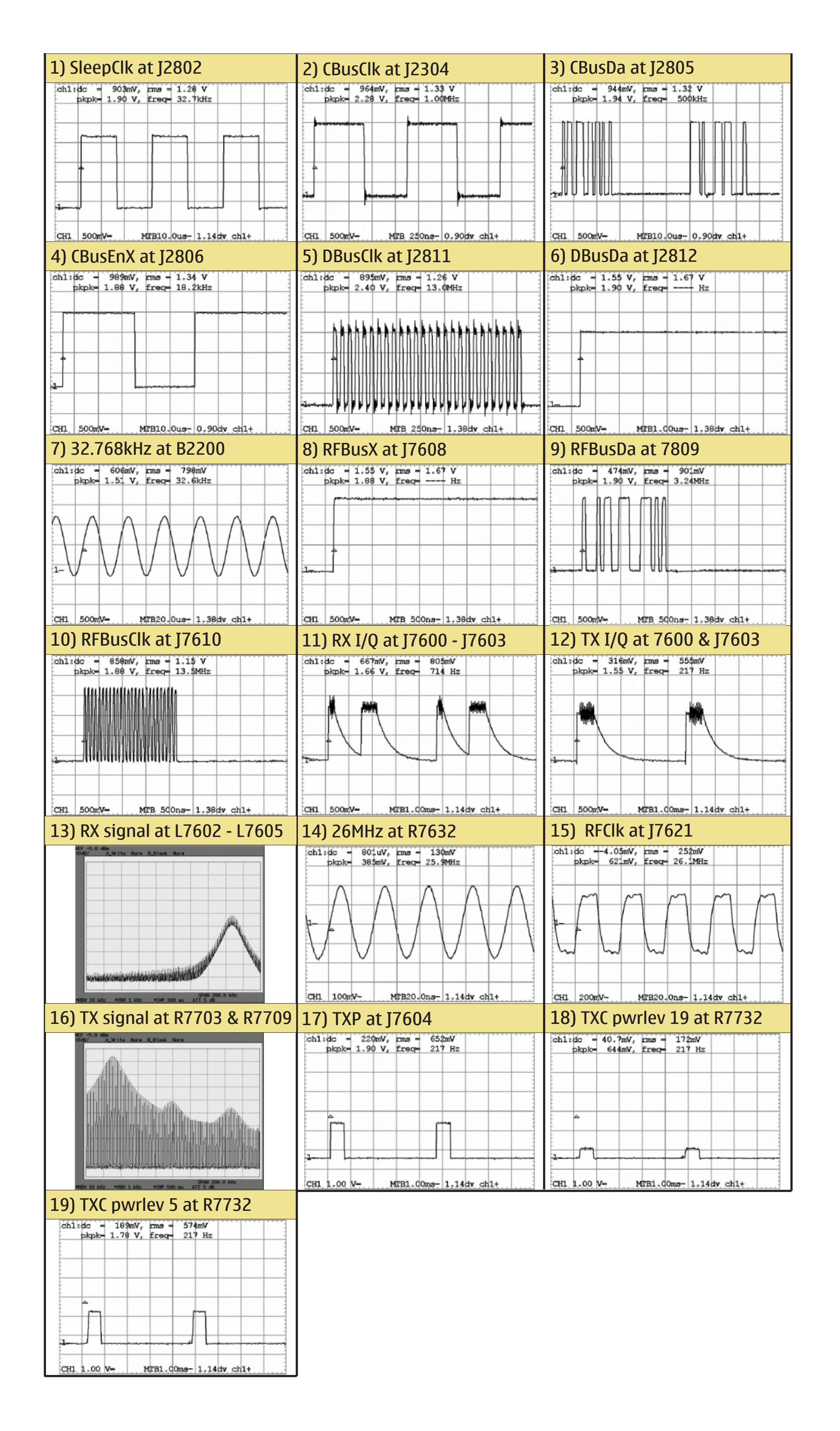
Tabel of content

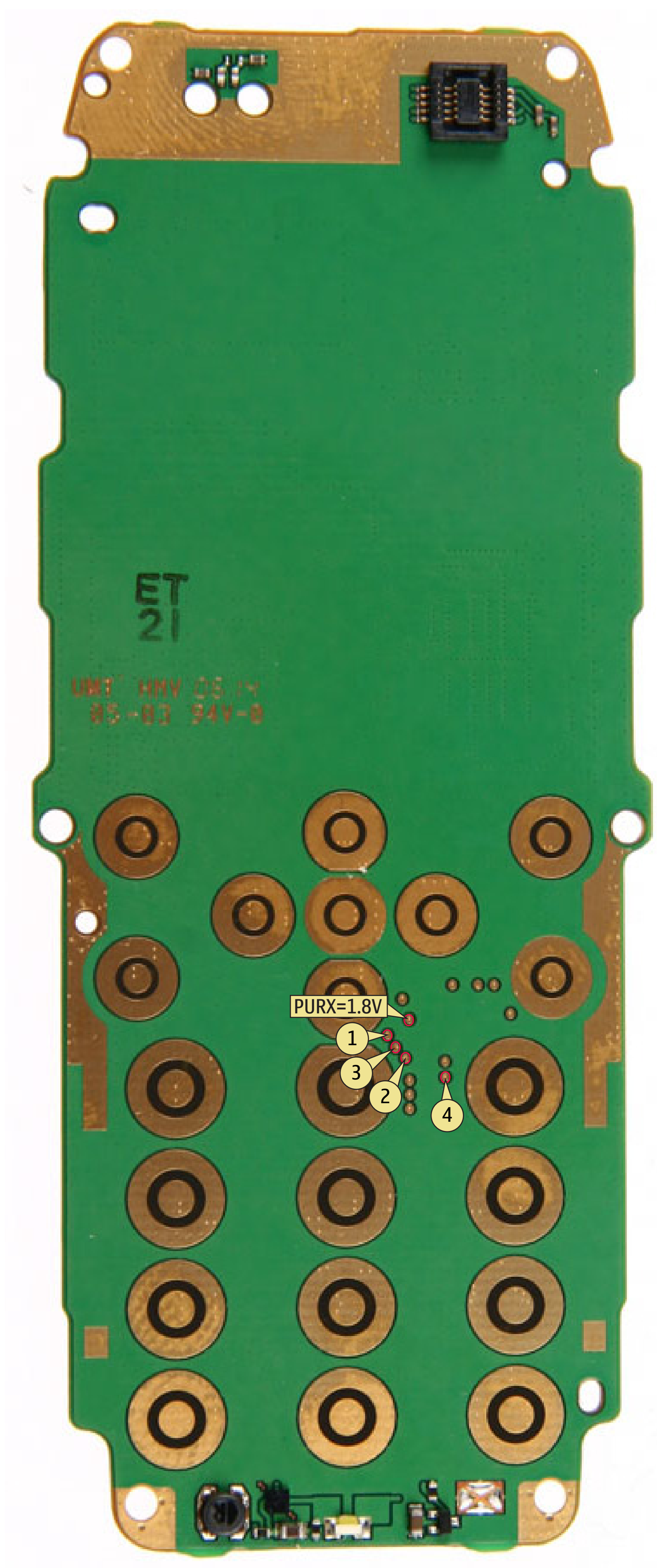

Display connector
1.8V
2.8V
H2400
VIO
VFLASH1
UPP
GENIO(31:0)
LCD_RESETX
LCD_CLK
LCD_SDA
LCDCSX
R2408
220R
R2407
220R
R2406
220R
C2403
100n
C2402
100n
GND
UPP
LCDUI(2:0)
VLED -
VLED +
2.8V
~4V
VBAT
V2401
PDTA114EE
UEM
KDL
L2400
22uH
R2401
4R3
N2400
TK65600B-G
IND
EN
FB
NC
VOUT
VDD
AGND
PGND
R2409
10k
C2401
1u0
C2400
1u0
R2400
33R
LW_V186-Q2T1-3K5L
V2400
Right
Send
Left
Soft right
Up
Down
Soft left
ROW0
ROW1
ROW2
ROW3
ROW4
S2404
S2414
S2419
S2403
S2408
S2413
S2418
S2402
S2407
S2412
S2417
S2401
S2406
S2411
S2416
S2400
S2405
S2410
S2415
S2421
Action
COL0
COL2
COL3
COL4
EMI filter
Z2400
EMIF10-LCD02F3
UPP
KEY(10:0)
UEM
AUDIO(4:0)
UPP
GENIO(31:0)
UEM
XAUDIO(6:0)
Bottom connector
XMIC(1:0)
R2153
C2151
C2164
C2157
100p
R2156
2k2
L2170
600R/100MHz
"MICP"
HOT
GND
B2100
Microphone
C2152
10p
~4V
VBAT
R2160
100k
N2160
TS5A23166DCUR
NO1
COM1
IN2
IN1
COM2
NO2
8= VBAT
4= GND
R2151
10R
R2155
10R
V2160
PDTC114EE
2x10k
R1
R2
1.8V if IHF speaker
is active
Audio amplifier
N2150
TPA2010D1YZFR
_SHDN
IN+
IN-
Vo+
Vo-
VDD
PVD
R2152
10k
C2161
100n
R2150
2/2 1k0
C2171
2u2
R2171
220R
R2154
1/2 2k2
C2155
1/2 33n
C2159
15n
R2158
18k
C2180
15n
R2159
18k
~4V
C2181
100n
C2182
1u0
L2181
220R/100MHz
L2180
220R/100MHz
L2182
33nH
L2183
33nH
C2153
47p
C2154
47p
B2101
IHF speaker

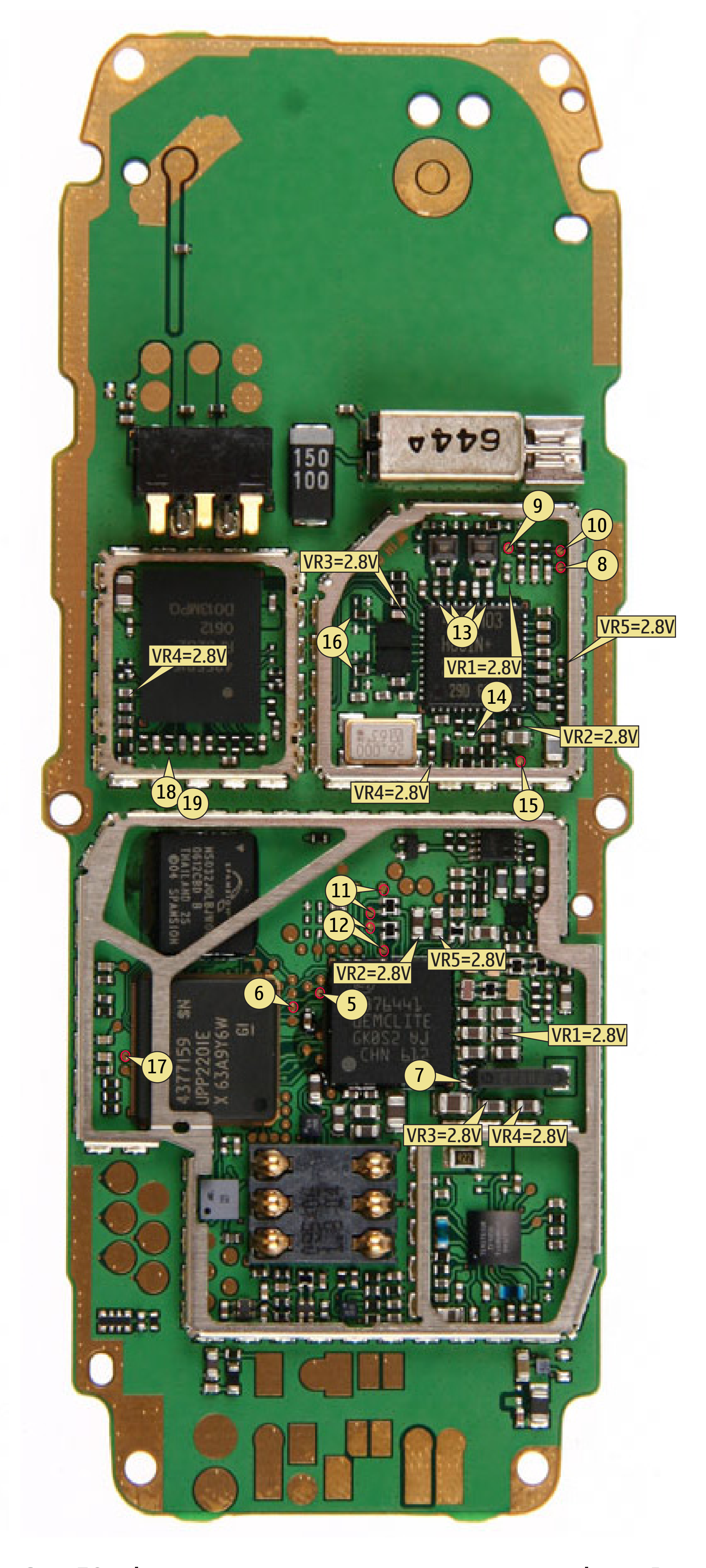

Bottom connector
Charging
Easy flash
Audio
Battery connector
~4V
FM-radio
Power key
UEM
2.8V in active mode
1.8V
1.35V
2.8V
UI
Vibra
Bottom connector
Prod test pattern
UPP
1.8V/ 3V depends on SIM card
SIM connector
Flash
RF-part
FM radio
Bottom connector
2.8V



UEM
(RFCONV 9:0)
TXIP
TXIM
TXQP
TXQM
RXIP
RXIM
RXQP
RXQM
R7610
5k6
R7611
J7600
J7601
J7602
J7603
C7627
56p
C7628
56p
UPP
(RFICCNTRL 2:0)
RFBUSX
RFBUSDA
RFBUSCLK
R7615
100R
R7616
100R
R7617
100R
J7608
J7609
J7610
C7610
10p
C7611
10p
C7612
10p
RF IC
N7600
PMB3258_V1.1
HUGIN
R7609
12k
C7639
270p
R7619
3k3
R7663
4k7
UEM
VR2
R7605
22R
C7620
2u2
C7657
22p
Z7602
EFCH942MTCC2.ES5
942.5MHz
Z7600
EFCH1842TCC2
1842.5MHz
R7606
0R
L7607
2n2H
L7602
10nH
L7603
10nH
L7604
2n2H
L7605
2n2H
C7607
1p2
C7604
0p5
VR3
2.8V
Z7603
BGH92M
869.5MHZ
Z7604
BGH182M
1710-1910MHz
VR1
VR5
VR4
2.8V
R7632
39R
B7600
26MHz
C7636
1p8
V7600
BBY56-02W
UEM
(RFAUXCON 2:0)
AFC
R7631
18k
R7630
100k
C7635
100n
0 - 2.5V
J7621
R2900
330R
C2900
1n0
RFCLK
UPP
R7704
1k0
R7705
1k0
R7706
1k0
R7720
1k0
C7700
33p
C7701
33p
C7702
33p
C7720
33p
R7700
1k0
R7701
1k0
R7707
1k0
R2207
1k0
PATEMP
UEM
(SLOWAD 6:0)
Front End Module
N7700
RF3282ES.1
N7701
RESNET_1DB
R7711
R7714
5R77
870R
R7703
0R
R7709
0R
2.8V
VR4
C7726
22p
C7728
0p5
C7727
10p
C7725
120p
R7733
100R
R7732
10k
J7604
TXP
TXC
UPP
(GENIO 31:0)
UEM
(RFAUXCON 2:0)
~4V
VBAT
C7711
2u2
C7712
15p
C7713
27p
C7714
27p
C7631
0p5


1) SleepClk at J2802
2) CBusClk at J2304
3) CBusDa at J2805
4) CBusEnX at J2806
5) DBusClk at J2811
6) DBusDa at J2812
7) 32.768kHz at B2200
8) RFBusX at J7608
9) RFBusDa at 7809
10) RFBusClk at J7610
11) RX I/Q at J7600 - J7603
12) TX I/Q at 7600 & J7603
13) RX signal at L7602 - L7605
14) 26MHz at R7632
15) RFClk at J7621
16) TX signal at R7703 & R7709
17) TXP at J7604
18) TXC pwrlev 19 at R7732
19) TXC pwrlev 5 at R7732


PURX=1.8V
1
2
3
4


VR3=2.8V
VR4=2.8V
VR5=2.8V
VR1=2.8V
VR2=2.8V
VR4=2.8V
VR5=2.8V
VR2=2.8V
VR1=2.8V
VR3=2.8V
VR4=2.8V
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

B		C2405	P5	C7726	J2	R2159	N7
B2200	O7	C2700	R4	C7727	K2	R2160	L6
B7600	K5	C2880	O4	C7728	K2	R2171	N8
C		C2881	P3	**D**		R2200	P6
C2000	G3	C2882	P3	D2200	O5	R2202	M7
C2001	G2	C2883	O2	D2800	O3	R2203	M7
C2002	G4	C2884	O2	D3000	M3	R2204	M6
C2003	S5	C2885	P3	**F**		R2205	M6
C2004	R5	C2886	P3	F2000	T7	R2206	M7
C2005	R5	C2887	O2	**H**		R2207	L4
C2006	R5	C2900	K7	H2400	C3	R2400	U5
C2007	S7	C3030	N2	**L**		R2401	U6
C2008	R4	C3031	N2	L2000	T7	R2406	O2
C2009	R4	C3032	N2	L2001	R3	R2407	P2
C2010	R5	C6157	R6	L2002	R4	R2408	P2
C2011	S3	C6158	R6	L2005	R6	R2409	T4
C2012	R4	C6159	Q7	L2170	S3	R2700	P4
C2013	R3	C6162	Q6	L2180	M7	R2900	K7
C2017	G5	C6163	R6	L2181	M7	R3030	O2
C2151	N7	C6165	Q8	L2182	B6	R6110	Q8
C2152	S3	C6170	R7	L2183	B6	R6159	R6
C2153	B6	C6176	R7	L2400	U6	R6160	R6
C2154	B7	C6178	R7	L6156	Q6	R7605	K7
C2155	N6	C6179	R7	L6176	R7	R7606	H7
C2157	O8	C7604	I6	L7602	I7	R7609	K6
C2159	N7	C7607	I7	L7603	I7	R7610	M5
C2161	N8	C7610	I8	L7604	I6	R7611	M5
C2164	N6	C7611	I7	L7605	I6	R7615	H8
C2165	N7	C7612	I7	L7607	H6	R7616	H7
C2171	N8	C7613	I7	**M**		R7617	H7
C2180	N7	C7614	J7	M2000	G6	R7619	J8
C2181	M7	C7620	K7	**N**		R7630	K6
C2182	M7	C7623	J7	N2150	M7	R7631	K7
C2200	O7	C7624	J8	N2160	L7	R7632	K6
C2202	O7	C7625	J6	N2400	T6	R7633	K2
C2203	O7	C7627	J5	N6156	Q7	R7635	K2
C2204	P5	C7628	J5	N7600	J7	R7663	K8
C2205	P5	C7630	K6	N7700	J3	R7700	I5
C2208	P4	C7631	D3	**R**		R7701	I5
C2220	M7	C7634	I7	R2000	G3	R7703	J5
C2222	P7	C7635	K6	R2001	Q3	R7704	K3
C2223	O7	C7636	K6	R2002	R5	R7705	K3
C2225	M6	C7637	K2	R2003	R5	R7706	K3
C2226	P7	C7638	K2	R2004	R5	R7707	I5
C2227	M6	C7639	J7	R2005	S5	R7709	I5
C2230	O7	C7641	J7	R2006	R5	R7711	J4
C2233	O7	C7643	K6	R2007	R4	R7714	J2
C2235	M7	C7644	J7	R2008	S4	R7720	K4
C2236	M5	C7645	I7	R2009	R4	R7732	K2
C2237	M5	C7655	I5	R2010	S3	R7733	K2
C2239	P5	C7656	J5	R2011	R4	**V**	
C2240	M6	C7657	K7	R2013	R5	V2000	S7
C2241	M6	C7658	J7	R2020	R5	V2160	L6
C2242	M6	C7659	I6	R2027	R5	V2400	U5
C2261	P6	C7668	I6	R2068	S2	V2401	U3
C2262	Q8	C7669	K8	R2069	S2	V7600	K6
C2263	R8	C7700	K3	R2070	S2	**X**	
C2287	M5	C7701	K3	R2150	N7	X2005	G3
C2330	G2	C7702	K4	R2151	L7	X2700	Q4
C2331	P5	C7711	I2	R2152	N7	**Z**	
C2332	P5	C7712	I4	R2153	N7	Z2400	Q3
C2400	U4	C7713	I2	R2154	N7	Z7600	H6
C2401	U5	C7714	K3	R2155	L6	Z7602	H7
C2402	C2	C7720	K4	R2156	O7	Z7603	J5
C2403	C2	C7725	K3	R2158	N7	Z7604	J5

